



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,209	09/29/2003	Shoji Iwasa	O11.2B-11333-US01	2521
490	7590	12/23/2004	EXAMINER	
VIDAS, ARRETT & STEINKRAUS, P.A. 6109 BLUE CIRCLE DRIVE SUITE 2000 MINNETONKA, MN 55343-9185			MARCHESCHI, MICHAEL A	
			ART UNIT	PAPER NUMBER
			1755	

DATE MAILED: 12/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/674,209

Applicant(s)

IWASA, SHOJI

Examiner

Michael A Marcheschi

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 6-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/8/04, 7/6/04</u> . | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 1755

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-5, drawn to a polishing composition, classified in class 51, subclass 308.
- II. Claims 6-9, drawn to a rinse composition, classified in class 510, subclass 175.
- III. Claim 10, drawn to a polishing method, classified in class 438, subclass 692.
- IV. Claim 11, drawn to a method or rinsing, classified in class 510, subclass 435.
- V. Claims 12-13, drawn to a method of treating, classified in class 438, subclass 692.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation, different functions, and different effects. A polishing composition is unrelated to a rinse composition.

Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used to polish glass.

Inventions I and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation, different functions, and different effects. A polishing composition is unrelated to a method of rinsing.

Art Unit: 1755

Inventions I and V are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used to treat glass.

Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation, different functions, and different effects. A rinse composition is unrelated to a method of polishing.

Inventions II and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used to rinse a glass substrate.

Inventions II and V are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used to treat a glass substrate.

Inventions III and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different

Art Unit: 1755

functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation, different functions, and different effects. A method of polishing is not related to method of rinsing.

Inventions III and V are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation, different functions, and different effects. A method of polishing is unrelated to the claimed method of treating since the treating method has a rinsing step.

Inventions IV and V are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation, different functions, and different effects. A method of rinsing is unrelated to the claimed method of treating since the treating method has a polishing step.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Scott Vidas on 12/14/04 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-5. Affirmation of this election must be made by applicant in replying to this Office action. Claims 6-13 are withdrawn

Art Unit: 1755

from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1755

Claims 1-5 are rejected under 35 U.S.C. 103(a) as obvious over Tsuchiya et al. (872).

Tsuchiya et al. teach in section [0026]-[0052], a composition comprising silica (claimed amount), a thickener (0.001-0.05 wt.%), ammonia and water. The thickener can be surfactants and water soluble polymers. A specific water soluble polymer is defined as hydroxyethyl cellulose. A specific surfactant is defined as a polymerization product of ethylene oxide (i.e. polyethylene oxide).

The reference teaches that hydroxyethyl cellulose and polyethylene oxide are thickeners which can be used in the reference composition. Although the combination is not specifically defined, this aspect would have been obvious because it is prima facie obvious to combine two or more materials disclosed by the prior art to form a third material (combination of thickeners) that is to be used for the same purpose. In re Kerkhoven 205 USPQ 1069. With respect to the amounts, since the above combination is obvious, the individual amounts must fall within the reference range for the entire thickener (i.e. 0.001-0.05 wt.%), thus as can be seen the individual amounts can fall within the claimed range.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as obvious over Inoue et al. (652) in view of Tsaor.

Inoue et al. teach in column 4, line 1-column 5, line 60, a composition comprising silica (claimed amount), an alkaline compound and water. Hydroxyethyl cellulose and water soluble polymers can also be added (see column 5, lines 50+).

Tsaor teaches in column 1, that lines 43-52 that polyethylene oxide is a water soluble material.

Art Unit: 1755

The primary reference teaches that hydroxyethyl cellulose and water soluble polymers can be added, and although the reference does not specifically mention polyethylene oxide, this component is obvious because (1) "A generic disclosure renders a claimed species *prima facie* obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co. v. Biocraft Lab. Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971)" and (2) polyethylene oxide is a well known water soluble polymer, as shown by the secondary reference. The amounts of these components are obvious because it is the examiners position that the skilled artisan would have known the amounts required to produce a polishing composition that meets the requirements of the primary reference, said amounts would have proved to be within the claimed range absent evidence to the contrary. With respect to the alkaline compound, the primary reference use one and although ammonia is not literally defined, the substitution of one alkaline material for another is well within the scope of the skilled artisan. In addition, the primary reference states that this material is not limited.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as obvious over Inoue et al. (672) In view of Tsaor.

Inoue et al. (672) teach in section [0022]-[0049], a composition comprising silica (claimed amount), 0.005-0.3 wt% of a water soluble polymer, an alkaline compound and water. The water soluble polymer is not specifically limited, but hydroxyethyl cellulose is specifically defined. Combinations of water soluble polymers can be used in a ratio.

The primary reference teaches that a combination of water soluble polymers can be used and specifically mentions hydroxyethyl cellulose. Since polyethylene oxide is a well known

Art Unit: 1755

water soluble polymer, as shown by the secondary reference, its use in combination with hydroxyethyl cellulose is within the scope of the reference and obvious to the skilled artisan. This is apparent because the reference specifically states that combinations of water soluble polymers can be used. In addition and assuming *arguendo* about this, the combination aspect would have been obvious because it is *prima facie* obvious to combine two or more materials disclosed by the prior art to form a third material (combination of water soluble polymers) that is to be used for the same purpose. In re Kerkhoven 205 USPQ 1069. With respect to the amounts, since the above combination is obvious, the individual amounts must fall within the reference range for the entire water soluble polymer, thus as can be seen the individual amounts can fall within the claimed range.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as obvious over Sasaki in view of Tsaor.

Sasaki teaches in column 21, line 9-column 22, line 45 and the claims, a composition comprising silica (claimed amount), ammonia, water and at **least one** water soluble polymer (20-1000 ppm). Polyethylene oxide and hydroxypropyl cellulose are specifically defined as the water soluble polymeric material.

Tsaor teaches in column 1, that lines 43-52 that cellulose derivatives, including hydroxyethyl cellulose, are water soluble materials.

Although the primary reference fails to literally define hydroxyethyl cellulose, this material is a known water soluble polymer, as shown by the secondary reference and the substitution of one cellulose derivative (hydroxyethyl cellulose) for another (hydroxypropyl cellulose as in the case of the primary reference) is obvious and well within the scope of the

Art Unit: 1755

skilled artisan. With respect to the amounts, since the above combination is obvious, the individual amounts must fall within the reference range for the entire water soluble polymer, thus as can be seen the individual amounts can fall within the claimed range.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over all the claims of copending Application No. 10/673,779. Although the conflicting claims are not identical, they are not patentably distinct from each other because the reduction to practice of the copending claims would render obvious the instant claims. All of the claimed limitations are defined by the copending claims. Although the copending claims might not define the content of the polyethylene oxide, this aspect is obvious because as can be seen the claims, the content of the polymer is 0.005-1.5 wt%, thus if a combination of hydroxyethyl cellulose and polyethylene oxide are used (see claim 7), the content of this combination must be within 0.005-1.5 wt%. Although this amount might be defined for the hydroxyethyl cellulose, since this is the water soluble polymer of copending claim 1, one skilled in the art would have known that this amount

Art Unit: 1755

is for any water soluble polymer, this being an obvious variation thereof. With respect to the individual amounts, since the above combination is obvious, the individual amounts must fall within the reference range for the entire water soluble polymer, thus as can be seen the individual amounts can fall within the claimed range.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of copending Application No. 10/673,767. Although the conflicting claims are not identical, they are not patentably distinct from each other because the reduction to practice of the copending claims would render obvious the instant claims. All of the claimed limitations are defined by the copending claims. Although the copending claims might not define the content of the polyethylene oxide, this aspect is obvious because as can be seen the claims, the content of the polymer is 0.0001-0.5 wt%, thus if a combination of hydroxyethyl cellulose and polyethylene oxide are used (see claim 8), the content of this combination must be within 0.0001-0.5 wt%. With respect to the individual amounts, since the above combination is obvious, the individual amounts must fall within the reference range for the entire water soluble polymer, thus as can be seen the individual amounts can fall within the claimed range.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The examiner acknowledges the statement on page 14, lines 3+ of the specification (synergistic action) but applicant states that the synergistic action is in comparison with conventional polishing slurries. Since the examiner does not know what the conventional polishing slurries are, this statement alone does not establish patentability over the applied references. The examiner also acknowledges the results defined in the tables but these too are not sufficient to establish patentability because (1) the compositions in the tables use specific amounts for the hydroxyethyl cellulose, polyethylene oxide and ammonia and the claims do not define amounts for all of these components, and (2) the application does not compare the claimed invention with a significant number of values outside the claimed range. In other words, comparative examples 13 and 14, alone, which define a combination of hydroxyethyl cellulose and polyethylene oxide, are insufficient to establish patentability since these comparative examples do not define a sufficient number of values outside the claimed range. In view of this, the tables are insufficient to establish patentability over the prior art that suggests the claimed combination.

In view of the teachings as set forth above, it is the examiners position that the references reasonably teach or suggest the limitations of the rejected claims.

"A reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings. *In re Opprecht* 12 USPQ 2d 1235, 1236 (CAFC 1989); *In re Bode* USPQ 12; *In re Lamberti* 192 USPQ 278; *In re Bozek* 163 USPQ 545, 549 (CCPA 1969); *In re Van Mater* 144 USPQ 421; *In re Jacoby* 135 USPQ 317; *In re LeGrice* 133 USPQ 365; *In re Preda* 159 USPQ 342 (CCPA 1968)". In addition, "A

Art Unit: 1755

reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments" See *In re Van Marter*, 144 USPQ 421.

"A generic disclosure renders a claimed species prima facie obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co. v. Biocraft Lab. Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971)".

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Malagari*, 182 U.S.P.Q. 549; *In re Wertheim* 191 USPQ 90 (CCPA 1976)".

Evidence of unexpected results must be clear and convincing. *In re Lohr* 137 USPQ 548. Evidence of unexpected results must be commensurate in scope with the subject matter claimed. *In re Linder* 173 USPQ 356.

The references cited on the 1449 have been reviewed by the examiner and are considered to be art of interest since they are cumulative to or less than the art relied upon in the above rejections.

Any foreign language documents submitted by applicant has been considered to the extent of the short explanation of significance, English abstract or English equivalent, if appropriate.

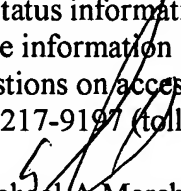
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

Art Unit: 1755

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L Bell can be reached on (571) 272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

12/04
MM


Michael A Marcheschi
Primary Examiner
Art Unit 1755